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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,208	02/20/2001	Masahiro Nagakura	1344.1056/JDH	3955

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EXAMINER
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STEVENS, THOMAS H

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/785,208

Applicant(s)

NAGAKURA, MASAHIRO

Examiner

Thomas H. Stevens

Art Unit

2123

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-12 were examined.

***Response to Applicant's Arguments***

**35 USC § 112**

2. Applicant's response is persuasive to negate 112 2<sup>nd</sup> rejection

**35 USC § 102**

3. Applicant's response to prior by Beauchamp et al. is persuasive, thus rejection is withdrawn.

**35 USC § 103**

4. Applicant's response to prior by Beauchamp et al. is persuasive, thus rejection is withdrawn.

***Non-Final Action (2<sup>nd</sup>)***

***Claim Rejections - 35 USC § 103***

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2123

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-12 were rejected under 35 U.S.C. 103 (a) as unpatentable by Rui et al., (A Review of ANN-based short-term load Forecasting (1995)), in view of Rebellow et al., (U.S. Patent 6,430,455 (2002)). Rui et al., teaches neural networks and load forecasting; but doesn't teach a process and apparatus to manage a series of events and updates. Rebellow et al. teaches an article for managing current files on numerical analysis.

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Rebellow et al. by way of Rui et al., since it would be advantageous to manage models and drawings in a manufacturing environment.

Claim 1. A computer-readable recording medium recorded with a numerical analysis program (Rebello: column 4, line 65): a master model creating function for creating a

Art Unit: 2123

master model representing (Rebello: column 2, lines 45-50) a shape of an object, a load region data creating function for creating load region data (Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is)) for specifying a load applying region in said master model , and an analytic model generating function for generating an analytic model where the load region data created by said load region data creating function is added to the master model created by said master model creating function (Rebello: columns 2-3 lines 65-67 and 1-16 with figures 2 and 3 (element 24 in particular)).

Claim 2. A computer-readable recording medium recorded with a numerical analysis program according to claim 1, (Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) wherein said numerical analysis program further comprises a load attribute setting function for setting up a load attribute for the load applying region specified by said load region data, (Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))and said analytic model generating function, when a load attribute (Rui: pg. 2 and 3 right column, Input Variables of BP Network section, 6<sup>th</sup> paragraph and 1<sup>st</sup> paragraphs, respectively) has been set up by said load attribute setting function, generates an analytic model with the load attribute added.

Art Unit: 2123

Claim 3. A computer-readable recording medium recorded with a numerical analysis program according to claim 1, (Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) wherein said load region data creating function sets up the load applying region by projecting an optional shape (Rebello: column 1, lines 10-19) surface onto the master model (Rebello: column 2, lines 45-50).

Claim 4. A computer-readable recording medium recorded with a numerical analysis program according to claim 3, Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) wherein said load region data creating function designates a projection direction of the optional shape (Rebello: column 1, lines 10-19) surface with respect to said master model by a vector.

Claim 5. A numerical analysis system comprising (Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) master model creating means for creating a master model representing a shape of an object, load region data creating means for creating load region data for specifying a load applying region in said master model, and analytic model (Rebello: columns 1 and 2, lines 40-45 and 45-50, respectively) generating means for generating an analytic model where the load region data created

Art Unit: 2123

by said load region data creating means is added to the master model created by said master model (Rebello: column 2, lines 45-50) creating means.

Claim 6. A numerical analysis system according to claim 5 (Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) wherein said numerical analysis system further comprises load attribute setting means for setting up a load attribute for the load applying region specified by said load region data (Rui: pg. 2 and 3 right column, Input Variables of BP Network section, 6<sup>th</sup> paragraph and 1<sup>st</sup> paragraphs, respectively), and said analytic model generating means, when a load attribute has been set up by said load attribute setting means, generates an analytic model with the load attribute added.

Claim 7. A numerical analysis system according to claim 5, (Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) wherein said load region data creating means sets up the load applying region by projecting an optional shape (Rebello: column 1, lines 10-19) surface onto the master model.

Claim 8. A numerical analysis system according to claim 7, (Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) wherein said load region data creating

Art Unit: 2123

means designates a projection direction (Rebello: figure 1 with column 2, lines 25-37) of the optional shape surface with respect to said master model by a vector.

Claim 9. A numerical analysis method comprising (Rebello: column 4, line 65): a master model-creating step for creating a master model representing (Rebello: column 2, lines 45-50) a shape of an object, a load region data creating step for creating load region data for specifying a load applying region in said master model, and an analytic model generating step for generating an analytic model where the load region data (Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is)) created by said load region data creating step is added to the master model created by said master model creating step.

Claim 10. A numerical analysis method according to claim 9, (Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) wherein said numerical analysis method further comprises a load attribute setting step for setting up a load attribute for the load applying region specified by said load region data (Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))), and said analytic model generating step, when a load attribute has been set up by said load attribute setting step, generates an analytic model with the load attribute added.



Art Unit: 2123

Claim 11. A numerical analysis method according to claim 9, (Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) wherein said load region data creating step sets up the load applying region by projecting an optional shape (Rebello: column 1, lines 10-19) surface onto the master model.

Claim 12. A numerical analysis method according to claim 11, (Rebello: column 4, line 65; Rui: pg. 2, left column 1 paragraph with Rebello: column 2, lines 45-52 (note: examiner interprets element 24 is where the load data is))) wherein said load region data creating step designates a projection direction of the optional shape (Rebello: column 1, lines 10-19) surface with respect to said master model by a vector.

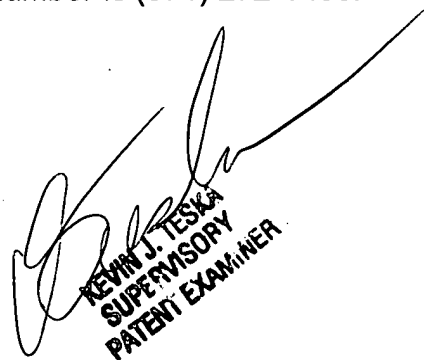
### ***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at (571) 272-3716. Fax number is 571-273-3715.

Any inquires of general nature or relating to the status of this application should be directed to the Group receptionist whose phone number is (571) 272-1400.

February 19, 2005

THS



KEVIN J. TESKA  
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PATENT EXAMINER